

## CLAIMS

1. An apparatus for breeding shellfish such as mussels, oysters and like shellfish to be bred in flowing water, comprising at least two mutually spaced apart floating bodies and/or ballast means, which floating bodies are mutually connected by connecting means, such that an open frame is formed by at least said connecting means, wherein at least between the floating bodies a series of breeding surfaces are provided, which breeding surfaces extend substantially parallel to each other above each other.  
5
2. An apparatus according to claim 1, wherein the breeding surfaces are formed by rows of growing elements arranged substantially next to each  
10 other.
3. An apparatus according to claim 2, wherein paths are provided between at least a number of rows of growing elements located next to each other.
4. An apparatus according to any one of the preceding claims, wherein  
15 the breeding surfaces are substantially manufactured from plastic, in particular plastic mats or plates provided with openings, such that shellfish can rest thereon and/or can attach thereto.
5. An apparatus according to any one of the preceding claims, wherein on or near the breeding surfaces means are provided for harvesting from the  
20 breeding surfaces shellfish growing thereon.
6. An apparatus according to any one of the preceding claims, wherein the frame is provided with supporting means on which the breeding surfaces, at least the growing elements, are mounted, such that at least parts of the breeding surfaces, in particular the growing elements, are  
25 removable individually and/or in groups.

7. An apparatus according to any one of the preceding claims, wherein on the breeding surfaces, upstanding edges are provided for preventing the shellfish being carried along from the breeding surfaces by flowing water.
8. An apparatus according to any one of the preceding claims, wherein 5 at least four floating bodies are provided, wherein the frame is substantially rectangular and wherein the breeding surfaces are situated between the floating bodies within the frame.
9. An apparatus according to any one of the preceding claims, wherein the distance between the floating bodies is relatively large relative to the 10 height of the frame, in particular at least three times the height and preferably at least five times the height.
10. An apparatus according to any one of the preceding claims, wherein the breeding surfaces are situated relatively closely above each other in proportion to the height of the frame and the distance between the floating 15 bodies, in particular with an intermediate distance between 0.1 and 1 meter, more in particular between 0.1 and 0.5 meter and preferably between 0.25 and 0.5 meter.
11. An apparatus according to any one of the preceding claims, wherein the floating bodies and/or ballast means are so designed that, with these, 20 the apparatus, in open water, in particular seawater, can be brought under water into a suspended position and is substantially self-lifting.
12. An apparatus according to any one of the preceding claims, wherein within the frame a number of subframes are provided, each provided with floating means and/or ballast means and/or lifting means for moving the 25 subframes relative to the frame, with each subframe comprising a series of breeding surface parts situated above each other.
13. An apparatus according to any one of the preceding claims, wherein the floating means and ballast means are substantially formed by cylinder-shaped tanks, provided with pumping means for pumping seawater 30 as ballast into and out of the tanks in a controlled manner during use.

14. An apparatus according to any one of the preceding claims, wherein the floating bodies are substantially cylinder-shaped with a longitudinal axis including an angle with the breeding surfaces and during use extending preferably substantially vertically.
- 5 15. A method for breeding shellfish such as mussels, oysters and the like, wherein an apparatus provided with a number of breeding surfaces extending above each other and positioned substantially horizontally is positioned in open water, in particular seawater, wherein shellfish and/or shellfish seed are provided on said breeding surfaces and are grown on the
- 10 breeding surfaces, the apparatus being so designed with at least partly open sides that said water flows freely between and along the breeding surfaces for supplying food.
16. A method according to claim 15, wherein the apparatus is brought under a water surface into a substantially suspended position using floating
- 15 bodies.
17. A method according to claim 15 or 16, wherein for harvesting shellfish from the breeding surfaces and/or maintenance of the apparatus, the apparatus is brought into a position floating substantially above the water, wherein the apparatus is approached using a vessel, and shellfish
- 20 and/or shellfish seed are brought from said vessel onto the breeding surfaces and/or shellfish are brought from said breeding surfaces into said vessel and/or said maintenance is carried out from said vessel.
18. A method according to any one of claims 15-17, wherein the apparatus is positioned at least 1 sea mile off a most nearby coast and
- 25 preferably outside territorial waters.